

A Taxonomic Study of the Genus *Latipalpus* (Coleoptera, Scarabaeidae), I

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Abstract A melolonthine genus *Latipalpus* MOSER is dealt with, generic characters are delineated, and a new species, *L. occidentalis* sp. nov., is described.

The genus *Latipalpus* MOSER is a group of the subtribe Rhizotrogina with medium-sized bodies and is characterized by the strongly swollen terminal segment of the maxillary palpus. It is distributed in southeast Asia, mainly in the Sunda Archipelago. MOSER (1921) established this genus on the basis of a Javanese species, *Holotrichia maxillata* BRENSKE, and described two new species, *L. truncatipalpis* and *L. palpalis* from Borneo. At the same time, he transferred *Holotrichia latipalpis* MOSER from Java to the same genus. Accordingly, only four species have hitherto been known as its members. Recently, I had an opportunity to examine fairly many materials of this group of scarabaeids including type specimens, and a detailed scrutiny has indicated that there still remain several undescribed species from the Archipelago. In this paper, I am going to show a general account of the genus, and then, to describe a new species from western Borneo.

The abbreviations used in this series are as follows: IN – interocular distance; HW – head width; CL – clypeus length; CW – clypeus width; PL – length of pronotum; PW – width of the widest part of pronotum; FL – length of metafemur; FW – width of the widest part of metafemur; A – arithmetic mean; ZMHU – collection of the Zoological Museum of Humboldt University, Berlin; MNHA – collection of the Museum of Nature and Human Activities, Hyôgo.

Before going further, I would like to express my hearty gratitude to Mr. M. FUJIOKA for his kind offer of invaluable materials. My hearty thanks are also due to Mr. K. MATSUDA of Takarazuka City for his critical reading of the manuscript and for his excellent guidance in the course of my study.

Genus *Latipalpus* MOSER

Latipalpus MOSER, 1921, Stett. ent. Ztg., **82**: 64.

Type species: *Holotrichia maxillata* BRENSKE, 1892.

Body oval to elongate, medium-sized; dorsal surface brown to dark blackish brown, moderately shining to opaque, glabrous though rarely hairy; ventral surface

brown to light brown; pro-, meso- and metasterna and metacoxa usually opaque and densely haired; abdomen shining though sometimes opaque, and mostly glabrous except for marginal areas; legs shining, densely or sparsely haired.

Head moderately wide; clypeus transverse, with a straight anterior margin and rounded antero-lateral corners; eyes moderately to remarkably prominent; antennae 10-segmented, with each club composed of 3 segments; maxillary galea quinquedentate, with a setigerous protuberance beside small, terminal denticle on ventral side, and also with a row of somewhat long setae on ventral surface of galea; terminal segment of maxillary palpus swollen in the middle or widened toward apex, truncate or rounded at apex; occipital area furnished with long hairs, which are recumbent toward vertex.

Pronotum transverse, more or less convex, with a wide transverse ridge along the posterior margin; the ridge conspicuous in the area approximately from posterior angle to ante-scutellar part, vanished near median line, and sometimes becoming irregularly shaped by a row of elliptical punctures, which are irregularly arranged on the ridge, and rarely replaced by a row of punctures throughout.

Elytra costate, the sutural, 2nd and 3rd costae usually distinct, but the 4th and 5th are often vestigial or completely vanished. Prosternum medio-basally with a transverse post-coxal process, which is various in shape, bidentate, slightly emarginate, quadrate, etc. Abdomen distinctly concave along median line in male, uniformly swollen in female.

Legs slender; protibiae bi- or tridentate in male, tridentate in female; protarsi moderately to extremely long in male, short in female; 4 posterior tarsi moderately long in both sexes; claws strongly to gently bent toward apices, each with a denticle situated between the middle and base.

Male genitalia flattened; each paramere with a blunt or sharp projection at apex; internal sac composed of a pair of stick-shaped arms and an elliptical piece, the arms and piece being connected with each other.

Notes. The genus *Latipalpus* is related to the genus *Pollaplonyx* in sharing the characters of the swollen maxillary palpi and the male abdomen with a medial concavity. It is especially close to the subgenus *Bunbunius* of the latter in sharing the clypeus with the straight anterior margin and the male genitalia with armed internal sac. On the other hand, *Latipalpus* can be separated from *Bunbunius* by the claws with vertically directed denticles and the parameres extending to the ventral side in males. From the nominotypical subgenus, *Pollaplonyx* s. str., it can be separated by the clypeus with a straight anterior margin and the male genitalia differently shaped.

Latipalpus includes some members with elongated bodies and extremely long tarsal segments as in *Pollaplonyx*, but the former also includes other members with oval bodies and short tarsi. This may indicate that the ancestors of these genera originally possessed genetic potentiality to branch off into two directions, one of which is the elongation of body and male protarsi. This seems to have appeared when the ancestral beetles spread their distribution from the Asian Continent to the Sunda Archipelago.

Latipalpus occidentalis T. ITOH, sp. nov.

(Figs. 1–8)

Description. Length: 14.8–20.2 mm.

Male. Head, pronotum, scutellum, tibiae and tarsi dark blackish brown, femora dark brown, antennae and maxillary palpi dark brown to light brown, elytra, pygidium and ventral surface light brown; dorsal surface weakly shining and glabrous; ventral surface almost opaque and densely haired, though the abdomen is shining and glabrous, femora shining and moderately sparsely haired.

Head moderately wide; clypeus transverse, densely punctate, CW/CL 2.1–3.7 (A 3.4, n=8), fronto-clypeal suture biarcuate; frons flattened, hardly elevated, scattered with fine punctures, sometimes weakly grooved along median line; eyes not so prominent, IN/HW 0.62–0.64 (A 0.63, n=8); vertex gently ridged; antennal club shorter than 7 preceding segments together; terminal segment of maxillary palpus noticeably swollen, widened apicad, though sometimes widest at the middle, with truncate apex.

Pronotum transverse and moderately convex, PL/PW 0.60–0.64 (A 0.62, n=8); anterior margin rimmed and glabrous; lateral margins straight and clothed with about 3–5 hairs in anterior halves, straight, sometimes feebly emarginate and glabrous in posterior halves; anterior and posterior angles obtuse; posterior margin with a wide transverse ridge conspicuous in a wide area except for posterior angles and median line; disc entirely glabrous, slightly rugose, sparsely and finely punctate in central area, more densely and a little more coarsely so near sides; the punctures seemingly coarser near sides than in central area because of noticeable concavity in the surroundings of the former.

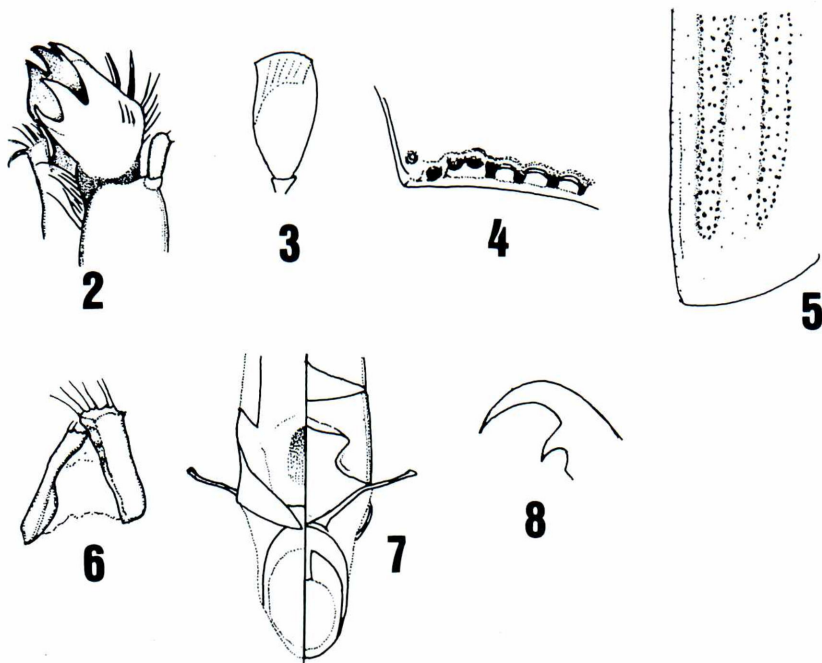
Elytra generally, inconspicuously costate; the sutural costa gradually widened to basal 1/3 and thence maintaining the same width to apex; the 2nd one very weakly raised, considerably wide though gradually widened apicad, closely approximated to



Fig. 1. *Latipalpus occidentalis* sp. nov.; habitus, ♂.

the sutural one, the 3rd distinctly much narrower than the 2nd, the 4th completely vanished, the 5th almost vestigial and very narrow; epipleuron evidently recognized to the level of 2nd sternite, reaching the level between 3rd and 4th sternites; marginal membrane extending to sutural angle. Scutellum sparsely to densely scattered with fine punctures. Pygidium slightly convex, slightly rugose, somewhat densely covered with coarse punctures, which are coarser than those on pronotum. Prosternum medio-basally with a somewhat bidentate, transverse post-coxal process. Metasternum somewhat convex.

Legs moderately slender, FW/FL 0.30–0.34 (A 0.32, n=8). Femora densely covered with long hairs, profemur coarsely punctate, meso- and metafemora more finely so; metafemur arranged with rather long hairs along the upper margin, which are sometimes lengthened to half the width of metafemur, and also arranged with a row of short setae on surface, which are lengthened to at most 1/5 times the width of metafemur. Protibiae tridentate, with 1st denticle distinct and situated slightly nearer to the apex than to the base (at basal 0.52–0.56 (A 0.54)). Longer one of metatibial spurs as long as the 1st metatarsal segment, which is always longer than the 2nd. Each claw strongly curved apicad, with a small, sharp denticle situated near the base; all the denticles of outer and inner claws of the same size in 4 anterior legs, but the former is somewhat smaller than the latter in the posterior legs.



Figs. 2–8. *Latipalpus occidentalis* sp. nov.; 2, right maxillary galea; 3, terminal segment of maxillary palpus; 4, posterior margin of pronotum; 5, distal portion of elytron; 6, coxite of female genitalia; 7, male genitalia (right half: dorsal side; left half: ventral side); 8, claw of fore leg.

Male genitalia somewhat flattened; each paramere forming a gradually narrowed projection, which is prolonged so as to contact with each other on the ventral surface; internal sac with arms slender, gently arcuate, and weakly bent near apices, each apex possessing a very small tubercle.

Female. Body larger and more robust than in male. CW/CL 2.9–3.4 (A 3.2, n=7), eyes not prominent, IN/HW 0.64–0.67 (A 0.65, n=7), antennal club as long as or feebly longer than the 6 preceding segments together. PL/PW 0.61–0.66 (A 0.63, n=7), abdomen uniformly swollen. Meso- and metafemora more swollen than in male, FW/FL 0.34–0.38 (A 0.35, n=7). Metafemoral hairs along the upper margin obviously shorter than half the width of metafemur, metafemoral setae on surface lengthened to 1/6 times the width of metafemur or less than that. Protibia robust, with 1st denticle situated at basal 0.50–0.53 (A 0.51). Protarsus conspicuously short; longer one of metatibial spurs slightly longer than 1st metatarsal segment, which is of the same length as the 2nd. Female genitalia as shown in Fig. 6.

Distribution. Western Borneo.

Holotype: ♂, Mt. Bawang, near Pontianak, W. Kalimantan, IV–1991. Paratypes: 1 ♂, 2 ♀♀, same data as for the holotype; 2 ♂♂, 1 ♀, same locality, V~VII–1991; 1 ♂, 3 ♀♀, same locality, VIII~IX–1991; 1 ♂, same locality, VII–1992; 2 ♂♂, 1 ♀, Mt. Saran, Kalimantan, W. Borneo, III–1992. The holotype and a paratype are deposited in MNHA, 2 paratypes in ZMHU, and the remaining 11 in the author's collection.

Notes. The present new species is closely allied to *L. maxillatus*, but is distinguishable from the latter by the disposition of the 1st protibial denticle in the male, the absence of hairs on the pronotal disc, and so on.

要 約

伊藤 武：スンダ列島のクロコガネ *Latipalpus* 属の分類学的研究，I。—— スンダ列島に広く分布する *Latipalpus* 属は，現在までに4種が知られるだけの小さいグループであったが，最近の筆者の研究から，さらにいくつかの未知種の存在することが判明した。今回は，本属の再記載を行い，ボルネオ島西部より1新種 *L. occidentalis* を記載した。

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